

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method of modelling a communications network using a computer system, the method including:

generating a network representation using computer-readable code, the computer-readable code representing structured information;

parsing the network representation;

generating a network model using the parsed network representation, the network model including a plurality of network objects and relationships between the plurality of network objects; and

storing the network model in memory.

2. (Original) A method according to claim 1, further comprising processing a network event using the network model, wherein processing the network event includes identifying one or more of the plurality of network objects, and determining an order of operation on the one or more of the plurality of network objects.

3. (Original) A method according to claim 1 wherein the network representation includes at least one of the following:

circuit level index;

circuit type identification;

order of operation indication;

delete circuit identification;

underlying circuit index;

underlying link index;

delete object identification;

parent circuit identification; and
child circuit identification.

4. (Original) A method according to claim 2 wherein the network representation is generated at startup.

5. (Original) A method according to claim 2 wherein the network representation is generated at reconfiguration.

6. (Original) A method according to claim 2 wherein the network event comprises at least one of provisioning, circuit provisioning, service provisioning, switch provisioning, rollback, and delete.

7. (Original) A method according to claim 1 wherein the network model includes a middleware bus.

8. (Original) A method according to claim 1 wherein the computer-readable code is in extensible mark-up language (XML).

9. (Original) A method according to claim 2 wherein processing the network event includes:

identifying one or more of the network objects in the network model; and
determining an order of operation on the one or more network objects.

10. (Original) A method according to claim 1, further including:
generating a graphical representation of the network model; and
displaying the graphical representation on a display monitor.

11. (Original) A method according to claim 10 wherein the graphical representation is a graphical user interface, and wherein the graphical user interface is used to modify the network model.

12. (Original) A method of modelling a communications network using a computer system, the method including:

generating a network representation in extensible mark-up language (XML);

parsing the network representation;

generating a network model using the parsed network representation, the network model including a plurality of network objects and relationships between the plurality of network objects;

storing the network model in memory; and

processing a network event using the network model, wherein processing the network event includes identifying one or more of the plurality of network objects, and determining an order of operation on the one or more of the plurality of network objects.

13. (Currently amended) A system for modelling a communications network, the system including:

one or more processors;

one or more memories coupled to the one or more processors; and

program instructions stored in the one or ~~more~~ more memories, the one or more processors being operable to execute the program instructions, the program instructions including:

generating a network representation using computer-readable code;

parsing the network representation;

generating a network model using the parsed network representation, the network model including a plurality of network objects; and

storing the network model in the one or more memories.

14. (Original) A system according to claim 13 wherein the computer-readable code is in extensible mark-up language (XML).

15. (Original) A system according to claim 13 wherein the network representation is generated at startup.

16. (Original) A system according to claim 13 wherein the network representation is generated at reconfiguration.

17. (Original) A system according to claim 13 wherein the network model includes a middleware bus.

18. (Original) A system according to claim 13 wherein the program instructions further include:

- generating a graphical representation of the network representation; and
- displaying the graphical representation on a display monitor.

19. (Original) A system according to claim 18 wherein the graphical representation is a graphical user interface, and wherein the graphical user interface is used to modify the network model.

20. (Original) A system for modelling a communications network, the system including:

- one or more processors;

- one or more memories coupled to the one or more processors; and

- program instructions stored in the one or more memories, the one or more processors being operable to execute the program instructions, the program instructions including:

- generating a network representation in extensible markup language (XML);

- parsing the network representation;

- generating a network model using the parsed network representation, the network model including a plurality of network objects and relationships between the plurality of network objects; and

processing a network event using the network model, wherein processing the network event includes identifying one or more of the plurality of network objects, and determining an order of operation on the one or more of the plurality of network objects.

21. (Original) A system according to claim 20 wherein the network event is selected from the group consisting of provisioning, rollback, and delete.

22. (Original) A system according to claim 20 wherein, to process the network event, the program instructions further include:

identifying one or more of the network objects in the network model; and
determining an order of operation on the one or more network objects.

23. (Original) A computer program product for modelling a communications network, the computer program product including a computer usable medium having computer readable code embodied in the computer usable medium, the computer readable code including instructions to:

generate a network representation, the network representation representing structured information;

parse the network representation; and

generate a network model using the parsed network representation, the network model including a plurality of network objects and relationships between the plurality of network objects.

24 (Original) A computer program product according to claim 23, the computer readable code further including instructions to process a network event using the network model, wherein processing the network event includes identifying one or more of the plurality of network objects, and determining an order of operation on the one or more of the plurality of network objects.

25. (Original) A computer program product according to claim 23, the computer readable code further including instructions to generate a graphical representation of the network model; and display the graphical representation on a display monitor.

26. (Original) A computer program product according to claim 25, wherein the graphical representation is a graphical user interface, and wherein the graphical user interface is used to modify the network model.

27. (Original) An apparatus for modelling a communications network using a computer system, the apparatus including:

means for representing a plurality of network objects and relationships between the plurality of network objects on the communications network;

means for generating a network model using the representing means, the network model including the plurality of network objects and relationships between the plurality of network objects on the communications network;

means for storing the network model; and

means for processing a network event using the network model.